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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,307	01/22/2004	Richard Edward Dubreuil	DWE/DUBREUIL	3088
32834	7590	12/31/2007	EXAMINER	
D.W. EGGINS			ALI, MOHAMED HATEM	
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CANADA			3692	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/761,307

Applicant(s)

DUBREUIL, RICHARD EDWARD

Examiner

Mohamed H. Ali

Art Unit

3692

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/19/2007 has been entered.

Acknowledgement

2. The **amendments** with **claims 2-19** received on 10/19/2007 have been entered. As such **Claims 2-19** are pending.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

In **claims 3-14**, the recitations, "The structural panel unit" in place of a wall frame structure, renders the claims indefinite because it is not found with all descriptions in original specification.

In **claims 3-5 and 7**, the recitations, "the structural unit" lacks antecedent basis. Proper corrections are required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 2-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Leung** (2002/0046514) in view of **May** (114,584).

As per claim 19 , Leung discloses a wall frame structure (510, Fig.11) having an enclosing rectangular frame work (610, Fig.13) comprising side and end members, and a plurality of pairs of load-bearing strut members (22s) extending in contained relation between said framework end members, having intermediate longitudinal portions of each said strut members (22s) pair in alternating converging and diverging mutually inclined relation, to form a series of interstitial openings within said framework (Figs. 10,11 and 13), wherein portions of said strut member pairs (22s) are in adjoined, mutual laterally constrained

relation, and are collectively in laterally constrained relation by said framework side members (510, Fig. 11), to provide shortened strut member portions of enhanced stiffness extending in connected load-bearing relation between said framework end members (see Fig. 11; via shortened members 22s to side and frame members 12s).

Leung fails to disclose explicitly load-bearing strut members extending in contained relation between said framework end members, having intermediate longitudinal portions of each said strut member pair in alternating converging and diverging mutually inclined relation, to form a series of interstitial openings

However, **May** in the same field of invention discloses load-bearing strut members extending in contained relation between said framework end members, having intermediate longitudinal portions of each said strut member pair in alternating converging and diverging mutually inclined relation, to form a series of interstitial openings (see **Fig.1-3** and general description of **Gratings** and implied use as struts for wall frame structure with all intended modifications by developed technologies like spot welding and other fastening materials).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the disclosure of **Leung** and include the above feature as taught by **May** to facilitate in order to make interstitial openings and rigid load bearing (inherent rigid gratings) capacity for the frame structure.

As per claims 2 and 3, **Leung** discloses said individual members (diagonals 22s of inclined two pairs) are of slender section modulus, prone to

individually buckle under longitudinal compressive loading of said individual strut members said member pairs having their individual outer ends mutually joined (outer ends 26 and 30 joined), each said individual members of said pairs of members being substantially immobilized at location intermediate their respective ends to significantly reduce their respective tendency to deform under load and side-wall members of said frame laterally constrain said individual members that are in contacting relation with said frame side-wall members (via vertical members 12).

As per claim 4, *Leung* discloses that upper and lower end portions of each of said pairs of members are secured to each other, and at least one said intermediate transition portions of each of said pairs of members are secured to each other (see paragraph [0034], and at least one strut member adjoined portion of a pair of said members is fastened in predetermined locations within said framework (by metal plate 30).

As per claim 5, *Leung* discloses that upper and lower ends of a pair of said individual members are secured to each other, and attached to an adjoining, portions of said rectangular framework (see **Fig.13**; via side extension)

As per claim 7, *Leung* discloses said rectangular framework enclosure includes face sheets in enclosing relation with said pairs, said pairs of strut members having edge portions thereof secured to adjoining surface portions of said face sheets (see para 0006; via plywood nailed to the **stud**).

As per claims 10 and 11, *Leung* discloses said strut member is laterally constrained substantially at its centre (centre 26) by contact with adjoining pairs

of said struts at the centre by the contact with an adjoining portion of said framework (510) by fastening means selected from the group consisting of nails, staples and glue, and combination thereof (by metal toothed plate **30**).

As per claim 14, Leung discloses said strut members are selected from the material group consisting of ply wood-based sheet board and metal (see para **0052**).

3. **Claims 6, 8, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Leung** (US 2002/0046514 A1) in view of **Kirk** (5,210,990).

As per claims 6 and 8, Leung discloses all the elements of the claimed invention, but failed explicitly to disclose said ends of a said pair of said strut members are glued to each other, and to say adjoining surface portions of said face sheets.

However, **Kirk** discloses the concept of having a wood composite C-channel framing lumber (see col. 3, lines 1-50) as member with ends and adjoining surface portion are glued to each other (see col. 3, lines 31-35) and said face sheets.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the member of **Leung** to include the C-channel framing lumber that are glued to each other as taught by **Kirk** in order to provide perfect straightness and uniform surface character.

As per claim 9, although Leung discloses a pair of member constrained at their centre, **Leung** fails to explicitly disclose strut member being constrained substantially at their centre by contact with adjoining pairs of said strut member.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to the pair of members of **Leung** to include the plurality of pairs adjoined at their centre since it has been held that the mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

4. **Claims 12-13, 15-17** are rejected under 35 U.S.C. 103 (a) as being unpatentable over Leung (US 2002 /0046514 A1) in views of **Cable** ET al (4,235,054).

As per claims 12 and 13, **Leung** discloses all the elements of the claimed invention, but fails to explicitly disclose a laterally extending tension member securing intermediate transition portions at least some of said strut members in mutually adjoined back-to-back relation and the tension member is consisting of strapping.

However, **Cable** et al discloses the concept of having a laterally extending tension member (55) securing intermediate transition portions of webs (42) in mutually adjoining back-to-back relation (see **Fig. 2**), and the tension member is an iron bar.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the panel of Leung to include the laterally strapping extending tension member as taught by Cable in order to provide lateral reinforcement of the wall section.

As per claims 15-17, **Leung** discloses the metal and plastic strut members having a profile cross section with side flanges extending for at least two or four portions of its length substantially planer end and centre portions.

However **Cable** discloses the concept of having metal studs including a profile section with side flanges (see col. 2, lines 32-40 and **Fig. 3-4**).

Therefore, it would have been obvious to an ordinary skill in the art at the time of invention was made to modify the members of **Leung** to include the metal studs with flanges as taught by **Cable** in order to provide more load-bearing capacity and more rigidity.

5. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Leung** (US 2002/0046514 A1) in view of **Griffin** (US 6,263,628 B1).

As per claim 18, **Leung** discloses all elements of the invention, but fails explicitly to disclose plastic foam in supporting relation with said individual members within said interstices, in use to resist lateral deformation of said individual members are subjected to buckling due to compressive loading of said strut member.

However, **Griffin** discloses plastic foam in supporting relation with said interstices, in use to resist lateral deformation of said individual members when subjected to say compressive loading of said strut member (see column 6 and lines 15-25; via foam **core 12**).

Therefore, it would have been obvious to an ordinary skill in the art at the time of invention was made to modify the wall panel of **Leung** to include the plastic foam in supporting relation with said members at said interstices.

Response to Arguments

6. Applicant's arguments with respect to **claims 2-19** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Timmerman et al (US 2002/0108332 A1) discloses a lateral force resisting system including a rigid structural panel and hoedowns.

Alexander (US 6, 385,937 B1) discloses modularized structure framing.

DiGirolama (US 6,892,504 B1) discloses wall structure with corner connectors.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed H. Ali whose telephone number is 571-270-3021. The examiner can normally be reached on 8.00 to 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mohamed H Ali
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MA

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